Business Intelligence
With
Microsoft Power BI

03 Days Training Program

Training Methodology: **Workshop**
Delivery Mode: **Physical Classroom**

Take your business analysis skills to the next level!

Make better & informed business decisions, reduce cost, identify new business opportunities and spot inefficient business processes.

Program Overview

Modern financial & business professionals are inundated with relevant and irrelevant business information & data. The core focus of the workshop is on exploring in detail how to convert data into insights and insights into better business decisions.

Microsoft **Power BI** enables analysts and business decision makers to connect directly with many data sources, extract, transform and model data and create stunning reports and dashboards enriched with AI capabilities.

The fundamental objective of this workshop is to enable the participants to devise a comprehensive analytical approach and convert data into informed reporting & dashboards. The participants will learn to leverage Microsoft Power BI to solve core business problems and improve financial & business operations.

The participants will take an in-depth dive into the wonders of Microsoft **Power BI**, igniting their interest for continuing skills development in this vital area. The workshop is designed to add immensely to the participant's ability to develop intelligent dashboards from published reports, discover better insight from the data & create practical recipes on the various tasks that one can perform with Microsoft Power BI.

ACS
TRAINING

Program Duration	**18 Hours**
Delivery Method	**Workshop**
Delivery Days	**03 Saturdays**
Assessment	**Workshop**
Certificate Given	**Yes**
Workshop Duration	**6 Hours/Day**

Who Should Attend

☑ Accounting & Finance Professionals / Financial Analysts.

☑ BI Managers and Analysts.

☑ Managers & Business Decision Makers.

☑ Supply Chain & Planning Professionals.

☑ HR Professionals.

☑ Data Analysts.

☑ Anyone interested in taking BI Certification.

☑ Professionals who are advancing their careers in BI.

Program Outline

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1 Day One

Module 1: What is Business Intelligence & Why to learn about it?

- ✓ Introduction to Business Intelligence (BI)
- ✓ BI vs Data Science
- ✓ Understanding the Self-Service BI Workflow
- ✓ The Framework of an Insight
- ✓ What are the common BI tools?
- ✓ Why to learn BI?

Module 2: Connecting & Transforming Data with "Power Query"

- ✓ Getting to know the types of data connectors and the query editor
- ✓ Getting data from Excel, text & CSV files
- ✓ Combining all the files in a folder
- ✓ Getting data from databases
- ✓ Shaping and transforming data to fit in data model
- ✓ Table transformations, text, number, and date specific tools
- ✓ Grouping & aggregating, filtering, splitting & merging
- ✓ Pivoting and un-pivoting columns
- ✓ Merging and appending queries
- ✓ Creating conditional columns
- ✓ Working with 'Transform' and 'Add column' tools
- ✓ Data source and query refresh settings
- ✓ Understanding Power Query 'M' language and 'Advance Query Editor'
- ✓ Data connection best practices

Module 3: Creating and managing Data Models

- ✓ Understanding what Data Model is and why we need it
- ✓ Normalization and denormalization
- ✓ Understanding 'Facts' and 'Dimensions' tables
- ✓ In-depth understanding regarding Primary vs Foreign keys
- ✓ Creating 'Star Schemas'
- ✓ Creating table relationships and understanding their cardinality
- ✓ Understanding 'filter flow', and relationship types
- ✓ Relationships vs Merged Tables
- ✓ Cardinality of relationships & filter direction
- ✓ Defining hierarchies and hiding fields in report view

2 Day Two

Module 4: Solving Data Analysis Problems with DAX

- ✓ Intro to Data Analysis Expressions (DAX)
- ✓ Similarities and differences with Excel formula language
- ✓ Calculated Columns vs DAX Measures
- ✓ Implicit vs Explicit Measures
- ✓ Row Context vs Filter Context, Evaluation Contexts and Relationships
- ✓ Knowing DAX Formula Syntax & Operators
- ✓ Learning Measure calculation Step-by-Step
- ✓ Getting to know the best practices in writing DAX functions
- ✓ Common DAX functions with their category
- ✓ Applying basic math and stat functions (SUM, AVERAGE, MAX, MIN, DIVIDE, COUNT, DISTINCTCOUNT)
- ✓ Use of Logical functions (IF, AND, OR, SWITCH & SWITCH - TRUE)
- ✓ Iterator (X) Functions (Working with iterators, SUMX & RANKX)
- ✓ Use of The CALCULATE function (CALCULATE & FILTER, CALCULATE & ALL, CALCULATE & ALLSELECTED)
- ✓ Table Functions (FILTER & ALL function, Adding Filter Context with FILTER function, RELATED & RELATEDTABLE functions)
- ✓ Using Variables in DAX queries (Optimizing DAX queries using Variables)
- ✓ Understanding time intelligence & applying Time Intelligence with DAX (SAMEPERIODLASTYEAR, DATEADD, DATESINPERIOD, DATEDIFF, DATESYTD, DATESQTD, DATESMTD, PARALLELPERIOD, TOTALYTD, TOTALQTD, TOTALMTD functions)

Module 5: Creating Smart Dashboards in Power BI Desktop

- ✓ Top 15 Rules to design the best Dashboards
- ✓ Knowing the report view and exploring its interface
- ✓ Power BI desktop options and settings
- ✓ Creating dashboard and adding visuals
- ✓ Report filtering options & drill down pages
- ✓ Adding & formatting buttons, shapes, and images
- ✓ Adding slicers, Cards and KPI visuals
- ✓ Customizing themes and creating bookmarks
- ✓ Adding common charts like column, bar, Line, Area, Pie, Donut & combo
- ✓ Adding advanced visuals like, Waterfall, funnel, Tree map and Scatter charts & maps
- ✓ Working with 'Analyze in Excel' as an external tool
- ✓ Creating 'Mobile Layout'
- ✓ Publishing online on Power BI Service

Module 6: Adding Custom Visuals from AppSource

- ✓ Accessing AppSource for importing Custom Visuals for Power BI
- ✓ Zebra BI custom visual
- ✓ Bullet Chart custom visual
- ✓ Bubble chart
- ✓ Ultimate waterfall custom visual
- ✓ Smart Filter

Module 8: Power BI service on the web

- ✓ Accessing Power BI Service and touring the interface
- ✓ License types
- ✓ Creating workspaces
- ✓ Creating Data-Driven Alerts
- ✓ Exploring Data with Q&A & Generating Quick Insights
- ✓ Understanding the difference between Reports & Dashboards
- ✓ Creating dashboard from multiple reports
- ✓ Collaboration with others
- ✓ Analyzing in Excel
- ✓ Installing 'Data Gateway'
- ✓ Scheduling auto refresh

Module 7: Power BI, Artificial Intelligence (AI) Visuals & Features

- ✓ The Decomposition Tree visual
- ✓ The Key Influencers visual
- ✓ The Q&A visual
- ✓ Anomaly detection
- ✓ Smart Narratives visual
- ✓ Analyze the changes
- ✓ Quick Insights

Module 9: Power BI Mobile App

- ✓ Installing Power BI Mobile App
- ✓ Creating Mobile view
- ✓ Adding visuals, publishing, and viewing dashboards on Mobile app / tab

Key **Highlights** of Workshop Takeaways

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- ➡ Develops detailed understanding of Data Analytics and BI.
- ➡ Turning data to insights by utilizing built-in AI features of Power BI.
- ➡ Transforming & shaping data from different sources using Power Query.
- ➡ Creating data models & understanding table relationships.
- ➡ Learning Power BI formula language called "Data Analysis Expressions (DAX)".
- ➡ Self-service Business Intelligence with Power BI.
- ➡ Readily available information across multiple devices including PC's, Tabs and Mobiles.
- ➡ Full process automation and reduction in manual work.
- ➡ Creation of highly professional dashboards from multiple data sources.
- ➡ Creating mobile view to visualize business results anytime anywhere.
- ➡ Publishing & sharing dashboards on Power BI service.

Suitability

Whether you are an enthusiastic **finance professional** or a **business decision maker** in other roles, attending this training workshop will significantly enhance your understanding and ability to deliver insights to make fast & informed business decisions.

This will lead both; the business processes to drive more friction-less and connected experiences, and the finance professionals to enhance their skills development.

Precisely, this training will enable the business managers, finance professionals & entrepreneurs to understand how to convert data into insights and insights into better business decisions.